Patent Claims

1. A method of liberating oxygen isotopes from oxygen-containing solids in which the solids are heated, characterized in that the oxygen-containing solids are brought into contact with graphite and heated up by means of induction whereby CO and/or CO_2 result.

2. The method according to claim 1, characterized in that the heating up of the solids is effected in vacuum.

3. The method according to claim 1 ~~or 2~~, characterized in that the CO or CO_2 resulting from the heating of the solids are isolated.

4. The method according to ~~one of~~ claims 1 ~~to 4~~, characterized in that the CO or CO_2 are fed to an analysis process.

5. The method according to claim 4, characterized in that the analysis process is a mass spectroscopic process.

6. The method according to one of claims 1 ~~to 5~~, characterized in that the solid is a silicate.

7. The method according to claim 6, characterized in that the heating is carried out from 1600 to 2200°C.

8. The method according to ~~one of~~ claim~~s~~ 1 ~~to 7~~, characterized in that the heating is carried out sequentially to drive off impurities like water.

9. An apparatus for liberating oxygen isotopes from oxygen-containing solids characterized in that it includes a graphite cuvette (1) and an induction source.

10. The apparatus according to claim 9, characterized in that the graphite cuvette (1) is provided in a vacuum-tight housing (5) of quartz glass to which a pump is connected.

11. The apparatus according to claim 9 ~~or 10~~, characterized in that it comprises means (7) for capturing gaseous CO or CO_2 arising from induction.

12. The apparatus according to claim 10 ~~or 11~~, characterized in that the housing (5) of quartz glass is provided with means (8) for cooling it.

13. The apparatus according to claim 10 ~~to 12~~, characterized in that the housing (5) of quartz glass can be opened on opposite sides to replace the solid with the graphite cuvette.

14. The apparatus according to claims ~~1 or~~ 13, characterized in that the graphite cuvette (1) is elongated whereby at an upper end a cavity (2) is provided for receiving the solids and at the opposite end an axial bore (3) is provided for receiving the solids and at the opposite end an axial bore (3) is provided which can receive a rod with which the graphite cuvette can be mounted in the housing (5).

15. A cuvette, characterized in that, it is composed of graphite.

16. A cuvette according to claim 15, characterized in that, it is elongated whereby a cavity (2) is formed at its upper end for receiving the solids and at the opposite end an axially bore (3) is provided which can receive a rod with which the cuvette (1) can be introduced into the housing (5).

17. A cuvette according to claim 16, characterized in that, it has bores (11a, 11b) which open outwardly in the return direction from the bore (3).